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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,353	01/04/2002	Vern Brownell	112153.128	7044

7590
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11/21/2005

EXAMINER

REFAI, RAMSEY

ART UNIT	PAPER NUMBER
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2152

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 10/038,353	Applicant(s) BROWNELL ET AL.	
	Examiner Ramsey Refai	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>07/25/03</u> | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
6) <input type="checkbox"/> Other: _____ |
|--|--|

DETAILED ACTION

1. Claims 1-20 are now presented for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claims 1 and 11 recite the limitations "the external network" in line 7, "the processors", "the address space" and "the storage network".
- Claims 2, 3, 4, 8, 9, 10, 12, 13, 14, 18, 19, and 20 recite the limitation "the control node".

Is this suppose to read *-the at least one control node-*?

- Claims 2 and 13 recite the limitation "the addressed entities" in line 3.
- Claims 7 and 17 recite the limitation "the interconnect" in line 1.

Claims 10 and 20 recite the limitation "the identified processor" in line 4.

- Claim 10 recites the limitation "the virtual processing network" in line 8. Should this have read *-the virtual processing area network-*?
- Claim 15 recites the limitation "the internal point to point fabric switch" in line 2.

There is insufficient antecedent basis for these limitations in the claims.

4. Claims 5 and 6 depend on claim 1 and claim 16 depends on claim 11, therefore these claims are rejected for being dependent on a rejected claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by DeKoning et al (U.S. Patent No. 6,675, 268).

7. As per claim 1, DeKoning et al teach a platform for computer processing, comprising:
a plurality of computer processors connected to an internal communication network
(column 5, lines 50-53, Figure 1);

at least one control node in communication with an external communication network

(host devices; column 5, lines 42-59, Figure 1) and an external storage network having an external storage address space (element 116 in Figure 1, column 5, line 50-column 6, lines 8), and wherein the at least one control node is connected to the internal network and thereby in communication with the plurality of computer processors (column 5, line 50-column 6, lines 8);

configuration logic to define and establish a virtual processing area network having a

corresponding set of computer processors from the plurality of processors

(column 5, line 40-column 6, line 8; logic is inherent in the host device which access the storage devices on behalf of client devices), a virtual local area

communication network providing communication among the set of computer processors but excluding the processors from the plurality not in the defined set, and a virtual storage space with a defined correspondence to the address space of the storage network (**column 5, lines 50-53 teaches that each host accesses storage on behalf of one or more client devices, not all. column 6, lines 9-67 and Figure 2 teach that each host device is associated with certain storage arrays/volumes. This provides a virtual network between specific clients and the associated storage arrays/volumes).**

8. As per claim 2, DeKoning et al teach the control node receives, via the internal communication network, communication messages addressed to entities on the external communication network, and wherein the control node includes logic to provide messages on the external communication network corresponding to the received messages (**column 6, lines 60-67).**

9. As per claim 3, DeKoning et al teach the control node receives, via the external communication network, communication messages addressed to entities on the platform, and wherein the control node includes logic to provide messages to the addressed entities corresponding to the received messages (**column 6, lines 60-67).**

10. As per claim 4, DeKoning et al teach the computer processors and the control node include network emulation logic to emulate Ethernet functionality over the internal communication network (**column 5, lines 40-59**).

11. As per claim 5, DeKoning et al teach wherein the internal communication network is a point-to-point switch fabric (**column 5, lines 55-59**).

12. As per claim 6, DeKoning et al teach wherein the internal communication network comprises a redundant interconnect connecting the computer processors and the at least one control node to redundant switch fabrics (**Figure 1, column 6, lines 48-60**).

13. As per claim 7, DeKoning et al teach at least one other control node connected to the interconnect and to form redundant control nodes (**Figure 1, column 6, lines 20-28**).

14. As per claim 8, DeKoning et al teach wherein the control node receives, via the internal communication network, storage messages from the computer processors, and wherein the control node includes logic to extract an address from a received storage message, to identify the defined corresponding address in the external storage address space, and to provide messages on the external storage network corresponding to the received storage messages and having the corresponding address (**column 6, lines 60-67, column 5, lines 46-67; host devices access storage devices on behalf of client devices. In order to access the request storage, the address is inherently extracted from the client access request**).

15. As per claim 9, DeKoning et al teach wherein the control node includes logic to buffer data corresponding to write messages received from a computer processor and to provide the buffered data in the corresponding message provided to the external storage network (**column 6, lines 60-67, Figure 1; HBA**).

16. As per claim 10, DeKoning et al teach wherein the control node receives storage messages from the external storage network, and wherein the control node includes logic to identify a corresponding computer processor or control node that the received message is responsive to, and to provide a corresponding message to the identified processor or control node (**column 6, lines 1-67; host devices can send and receive storage message to and from client device and storage arrays**).

17. As per claims 11-20, these claims contain similar limitations as claims 1-10 above, therefore are rejected under the same rationale.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Gonda et al (U.S. Patent No. 6,662,221)
- b. Stallmo et al (U.S. Patent No. 5,546,535)
- c. Pittelkow et al (U.S. Patent No. 6,883,065)
- d. Nolan et al (U.S. Patent No. 6,640,278)

- e. Weber et al (U.S. Patent No. 6,820,171)
- f. DeKoning et al (U.S. Patent No. 6,757,753)
- g. Homma et al (U.S. Patent No. 6,950,871)
- h. Weber et al (U.S. Patent No. 6,480,901)
- i. Brown et al (U.S. Patent No. 6,184,414)
- j. Furuhashi et al (U.S. Patent No. 6,411,625)


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Refai whose telephone number is (571) 272-3975. The examiner can normally be reached on M-F 8:30 - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramsey Refai
Examiner
Art Unit 2152

RR 
November 15, 2005


BUNJOB JAROENCHONWANIT
PRIMARY EXAMINER